

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Claims 1-4 (Cancelled).

5. (Currently Amended) A method of fabricating a semiconductor device, the method comprising:

forming an amorphous silicon film on a substrate;

irradiating said amorphous silicon film with laser light to transform at least a part of said amorphous silicon film into a polycrystalline silicon film, wherein the laser beam is a linear beam of laser light having an energy-density gradient of at least $3 \text{ (mJ/cm}^2\text{)}/\mu\text{m}$ in a widthwise direction of the beam, the laser light having a wavelength in a range between 350 nm and 800 nm; and

after producing said polycrystalline silicon film, oxidizing said polycrystalline silicon film in an a saturated water vapor ambient including oxygen, after the irradiation, wherein the laser light is a linear beam having an energy density gradient of at least $3 \text{ (mJ/cm}^2\text{)}/\mu\text{m}$ in a widthwise direction, and including generating the linear beam by transforming pulsed laser light having a wavelength in a range between 350 nm and 800 nm, and the oxidizing is performed in a saturated water vapor ambient at a pressure of at least 10 atmospheres and at a temperature in a range between 500°C and 650°C to form an oxide film covering said polycrystalline silicon; and

without removing said oxide film, forming a gate electrode on said oxide film opposite said polycrystalline silicon film.

6. (Currently Amended) The method according to claim 5, comprising, before forming said gate electrode, depositing a film of silicon oxide, by chemical vapor deposition, on said polycrystalline silicon oxide film after the oxidizing.

7. (Previously Presented) The method according to claim 5, including irradiating said amorphous silicon film with the laser light so that the widthwise direction is parallel to a direction connecting a source region and a drain region in a thin film transistor to be fabricated in the polycrystalline silicon film.

8. (Previously Presented) The method according to claim 6, including irradiating said amorphous silicon film with the laser light so that the widthwise direction is parallel to a direction connecting a source region and a drain region in a thin film transistor to be fabricated in the polycrystalline silicon film.

9. (New) The method according to claim 5, comprising, before oxidizing said polycrystalline silicon film, patterning said polycrystalline silicon film on said substrate so that said polycrystalline silicon film has side surfaces, wherein, in oxidizing said polycrystalline silicon film, the side surfaces of said polycrystalline film are covered by said oxide film.